



WATER-RIGHT DOCKET

Dinosaur National Monument

Docket No: 6

DEER LODGE PARK WELL

Preliminary Docket Information

00-00-0000: water right record park: dino docket number: federal #6

WATER RIGHT RECORD

Park: DINO

Docket Number:

Federal #6

IDENTIFICATION NO: DINO, W, 2, 1, 0, 6, 9, 9, A, F, 0, 6,

DITCH/WATER SYSTEM: Deer Lodge Park Campground

SOURCE OF SUPPLY: Well #1

LOCATION: SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 21, T6N, R99W, 6th PM

WATER RIGHT:

Appropriator: United States of America, National Park Service

Application/Permit Number: 12224

Certificate Record Number:

Date of Priority: July 17, 1962

Quantity of Water: .044 c.f.s.

Purpose: Domestic

Irrigated Land Description:

SUMMARY OF STATUS: This is a Federal water right.

Well drilled on Sept. 15, 1962.

This well was filed with the State of Colorado as a reserved water right
In the Matter of the Application for Water Rights of the United States of
America in the District Court in and for Water Division No. 6 W-85 & W-86

Well #2 changed to Docket #24

DOCKET INFORMATION SHEET

[illegible]

Form E (Rev.)
5-62

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF THE STATE ENGINEER
GROUND WATER SECTION

Index No.
 IDWD
 Use
 Registered

LOG AND HISTORY OF WELLPERMIT NO. 12234

Driller Frederickson's Inc. Lic. No. 480
 Owner National Park Service
 Street 91 west Main City Vernal, Utah
 Tenant _____
 Use of Water Domestic
 On or By _____ No. _____
 (description of site or land) Acres _____
 Date Started September 15, 19 62
 Date Completed September 19, 19 62
 Yield 2 GPM or _____ CFS

WELL DESCRIPTION:

Depth to Water 42 ft. Total Depth 53'10" ft.
 (measured from ground surface)
 Hole Diameter { from 33'10" ft. to 33'10" ft., 6 3/4 in.
 from 33'10" ft. to 50 ft., 3 7/8 in.
 from _____ ft. to _____ ft., _____ in.

TEST DATA:

How Tested 1 Pump or _____ Bailed
 Date Tested Sept. 19, 19 62 Length 3 hrs.
 Rate 2 GPM Drawn Down 21'9" ft.

PUMP DATA:

Pump Type Hand Outlet Size 1 1/4 in.
 Driven by _____ HP

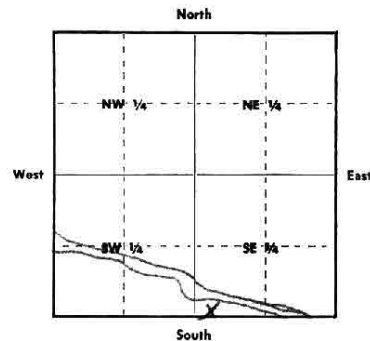
CASING RECORD:

Plain Casing
 Size 4 1/2" x 30, Kind black from 2 ft. to 33'10" ft.
 Size _____, Kind _____ from _____ ft. to _____ ft.
 Size _____, Kind _____ from _____ ft. to _____ ft.

Perforated Casing
 Size _____, Kind _____ from _____ ft. to _____ ft.
 Size _____, Kind _____ from _____ ft. to _____ ft.
 Size _____, Kind _____ from _____ ft. to _____ ft.

WELL LOCATION

Hoffet County
SW 1/4 of SE 1/4 of Sect. 21
 Twp. 6N, Rge. 99W, 6 PM



ABOVE DIAGRAM REPRESENTS ONE FULL SECTION. LOCATE WELL ACCURATELY IN SMALL SQUARE REPRESENTING 40 ACRES.

or

If the above is not applicable fill in:

Deerledge Park San Juan River
 No. 22 Street 2222
Discour National Monument
 City or Town _____

or

Lot _____, Block _____

_____ Subdivision
 (include filing or number)

TO BE MADE OUT IN QUADRUPLICATE:

Original Blue and Duplicate Green Copy must be filed with the State Engineer within 30 days after well is completed. White copy is for the Owner and Yellow copy for the Driller.

FOR WELL LOG USE REVERSE SIDE

WELL LOG

Ground Elevation _____ (if known)

How Drilled Battery[illegible]

(if more space is required use additional sheet)

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my knowledge and belief.

Signed Frederickson's Inc.

By /s/ G. B. Friedrichmann, Pres.

Dated _____, 19____

Form D (Rev.)
1/54STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF THE STATE ENGINEER, GROUND WATER SECTION

PERMIT TO USE GROUND WATER

This permit is issued to the applicant of the address shown below authorizing the use of ground water in the amount, for the use as indicated on/at the location given in the application, and as of the initiation date shown.

Form C (Rev.) STATE OF COLORADO
3-62/5M APPLICATION FOR USE OF GROUND WATER
(Use Indelible Pencil or Typewriter)Applicant National Park ServiceP.O. Address 91 West Main, Vernal, Utah

Quantity applied for _____ gpm or _____ AF Storage

Used for Domestic Purposeson/at Deerlodge
Dinosaur National Monument
(legal description of land site)

Total acreage irrigated and other rts.

ESTIMATED DATA OF WELL

Hole size: 4 in. to 50 ft.
_____ in. to _____ ft.Casing Plain 4 in. from 10 to 20 ft.

_____ in. from _____ to _____ ft.

Open or Perl. 4 in. from 30 to 40 ft.

_____ in. from _____ to _____ ft.

PUMP _____ Outlet
DATA: Type Hand HP 0 Size 1"Use initiation date _____ 19____
(Use Supplemental pages for additional data)

THIS APPLICATION APPROVED

PERMIT NO. 12224ISSUED: _____
DATE JUL 17 1952 19____

SEAL

NOTE — SATISFACTORY COMPLETION REQUIRED FOR APPROVAL OF APPLICATION

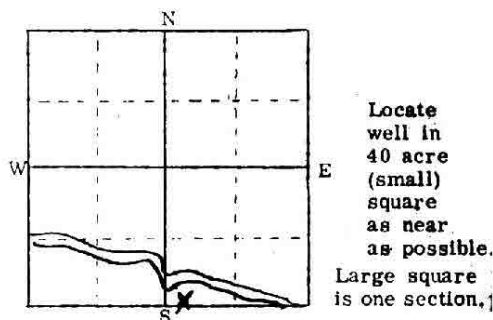
THE ABOVE APPLICATION, BEING A PART OF THIS PERMIT, IS APPROVED AS INDICATED.

LOCATION OF WELL

County MoffatSW 1/4 of SE 1/4 of Sect. 21, Twp. 6NRge. 99 W, 6 P.M. OR

Street Address or Lot & Block No. _____

Town or Subdivision _____



\$25.00 fee required for uses other than Domestic or Livestock.

Applicant _____

Agent or _____

Driller _____ No. _____

Address _____

By

J. B. Whitton.
STATE ENGINEERSho W. Colburn
Authorized Agent

Supporting Hydro Data

Form 10-174
(Rev. 8-56)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

COMPLETION REPORT OF CONSTRUCTION PROJECT

REGION Midwest	AREA Dinosaur National Monument	COUNTY Moffat	STATE Colorado
PROJECT OR JOB TITLE Water Test Wells along the Yampa River Campsites			PCP NO. M-31 (Refer to)
LOCATION IN AREA Echo Park and Deerlodge		MASTER PLAN NO.	BUILDING NO.
WORKING DRAWING NO. AND TITLE Anderson Hole, Harding Hole, Box Elder.			
APPROPRIATION TITLE AND SYMBOL 14x1035 (0343) Construction			WORK ORDER NO. DTMO 2-WR-63B (1st Rev)
CONTRACT NO. 14-10-0232-700		DATE WORK STARTED August 2, 1962	DATE WORK COMPLETED September 21, 1962
NAME OF CONTRACTOR Frederickson's Inc., & G. B. Frederickson		ADDRESS Rutchtinson, Minnesota	

COST ANALYSIS

CONSTRUCTION ITEMS	QTY.	UNIT COST IN PLACE	TOTAL COST IN PLACE
<u>Anderson Hole Well</u>			
Contract Costs		2,129.00	2,139.93
Misc. Costs		10.93	
<u>Harding Hole Well</u>			
Contract Costs		2,667.00	2,677.93
Misc. Costs		10.93	
<u>Echo Park Well</u>			
Contract Costs		4,124.00	4,134.93
Misc. Costs		10.93	
<u>Box Elder Well</u>			
Contract Costs		3,039.00	3,049.92
Misc. Costs		10.92	
<u>Deer Lodge Park Well</u> ✓			
Contract Costs		1,495.00	
Test Pump		122.48	
		TOTAL	

SUMMARY OF EXPENDITURES

PERSONAL SERVICES	EQUIPMENT	MATERIALS AND SUPPLIES
OTHER		

CHANGE ORDERS

ORIGINAL CONTRACT AMOUNT	FIRST	SECOND	THIRD
FINAL CONTRACT AMOUNT	FOURTH	FIFTH	SIXTH

THIS PROJECT OR JOB HAS BEEN COMPLETED IN ACCORDANCE WITH
APPROVED DRAWINGS, SPECIFICATIONS, AUTHORIZED CHANGES

SUBMITTED BY (Name and title) (Sgd) Verne R. Bertsch Verne R. Bertsch, Ch. Pl. Rgr.	DATE November 30, 1962
APPROVED BY (Name and title) (Sgd) Earl M. Semingsen Earl M. Semingsen, Supt.	DATE December 3, 1962

(ATTACH NARRATIVE STATEMENT, PHOTOGRAPHS, AND "AS BUILT" DRAWINGS TO THIS FORM)

Deer Lodge Park Well (Continued)

Misc. Costs

10.92

1,528.40

Total Cost

13,631.11

NARRATIVEDEER LODGE PARK WELL

1. Started drilling well September 15, 1962 and completed well the same day. Well was pump tested on September 19, 1962.

2. Total Cost of Drilling Well

Drilling, 30 ft. @ 40.00	\$1,200.00
Drilling, 4 hrs. to 60 ft. @ 12.00	48.00
Casing, 36 ft. @ 2.00	72.00
Grouting	95.00
Bailing & testing, 2 hours	40.00
Pump test	122.48
Total	\$1,617.48

3. Drilling Log

Fine sand, gray	0-20 feet
Boulders, red, gray, white	20-29 feet
Sandstone with streaks of shale, gray, white	29-60 feet

4. No difficulties encountered.

5. Physical Dimensions

60 ft. hole
4 inch diameter

6. Test Pumping Data

September 19, 1962 - pump test data:

Static water level	42 feet (flowing well)
Pumping water level	21 feet 9 inches at 2 GPM

November 1, 1962 - pump test data:

Pumped at 3 GPM - pumping level at 23 feet
Static water level 42 feet (flowing well)

7. Equipment Used

A truck mounted rotary rig was used to drill this well.

8. Drilling Progress

The entire well was drilled in one day, September 11, 1962.

9. Cementing

A surface seal of concrete to a depth of 8 feet and 6 inches thick was poured around the 4 inch casing.

10. Quality of Water Supply

See attached sheet, an analysis by Geological Survey, United States Department of the Interior, Ground Water Branch, Room 125, 231 East 4th South, Salt Lake City, Utah.

Refer to PCF H-31, Well Development. Hand pumps will be used at this well.

Submitted by:

Verne E. Baruch, Chief Park Ranger

Approved by:

Earl H. Henningsen, Superintendent

(Rev. 5-62)

 Index No. _____
 DWD _____
 Use _____
 Registered _____

 STATE OF COLORADO
 DIVISION OF WATER RESOURCES
 OFFICE OF THE STATE ENGINEER
 GROUND WATER SECTION

LOG AND HISTORY OF WELL

PERMIT NO. 13224
 Driller Frederickson's Inc. Lic. No. 453
 Owner National Park Service
 Street 91 West Main City Yermal, Utah
 Quantity _____
 Use of Water Domestic
 Driven By _____ No. _____ Acres _____
 (description of site or land)
 Date Started September 15, 19 62
 Date Completed September 19, 19 62
 Depth 2 GPM or _____ CFS

WELL DESCRIPTION:

 Depth to Water 42 ft. Total Depth 53'10" ft.
 (measured from ground surface)
 Log { from 53'10" ft. to 53'10" ft., 6 3/4 in.
 diameter { from 53'10" ft. to 63 ft., 3 7/8 in.
 from _____ ft. to _____ ft., _____ in.

TEST DATA:

 Flow Tested X Pump or _____ Bailed
 Date Tested Sept. 19, 19 62 Length 3 hrs.
 Rate 2 GPM Drawn Down 21'9" ft.

PUMP DATA:

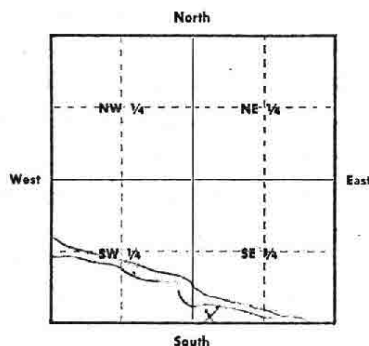
 Pump Type Hand Outlet Size 1 1/4 in.
 Driven by _____ HP

Casing RECORD:

 Plain Casing
 Size 4 1/2" OD Kind black from 2 ft. to 33'10" ft.
 Size _____ Kind _____ from _____ ft. to _____ ft.
 Size _____ Kind _____ from _____ ft. to _____ ft.

 Perforated Casing
 Size _____ Kind _____ from _____ ft. to _____ ft.
 Size _____ Kind _____ from _____ ft. to _____ ft.
 Size _____ Kind _____ from _____ ft. to _____ ft.

WELL LOCATION

 Twp. 6N, Rge. 99W, 6 PM
 County Hoffat
 SW 1/4 of SE 1/4 of Sect. 21


ABOVE DIAGRAM REPRESENTS ONE FULL SECTION. LOCATE WELL ACCURATELY IN SMALL SQUARE REPRESENTING 40 ACRES.

or

If the above is not applicable fill in:

Deerledge Park Yampa River
78 5/24
Missouri National Monument

City or Town

or

Lot _____, Block _____

 _____ Subdivision
 (include filing or number)

TO BE MADE OUT IN QUADRUPLICATE:

Original Blue and Duplicate Green Copy must be filed with the State Engineer within 30 days after well is completed. White copy is for the Owner and Yellow copy for the Driller.

FOR WELL LOG USE REVERSE SIDE

Form D (Rev.)
1/58STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF THE STATE ENGINEER, GROUND WATER SECTION

PERMIT TO USE GROUND WATER

This permit is issued to the applicant of the address shown below authorizing the use of ground water in the amount, for the use as indicated on/at the location given in the application, and as of the initiation date shown.

Form C (Rev.)
3-62/5MSTATE OF COLORADO
APPLICATION FOR USE OF GROUND WATER

(Use Indelible Pencil or Typewriter)

Applicant National Park ServiceP.O. Address 91 West Main, Vernal, UtahQuantity applied for _____ gpm or
_____ AF StorageUsed for Domestic Purposeson/at Deerlodge
Dinosaur National Monument
(legal description of land site)

Total acreage irrigated and other rts.

ESTIMATED DATA OF WELL

Hole size: 4 in. to 50 ft.
_____ in. to _____ ft.Casing Plain 4 in. from 10 to 20 ft.
_____ in. from _____ to _____ ft.Open or Perf. 4 in. from 30 to 40 ft.
_____ in. from _____ to _____ ft.PUMP _____ Outlet
DATA: Type Hand HP 0 Size 1"Use initiation date 19
(Use Supplemental pages for additional data)

THIS APPLICATION APPROVED

PERMIT NO. 12224ISSUED: JUL 17 1952

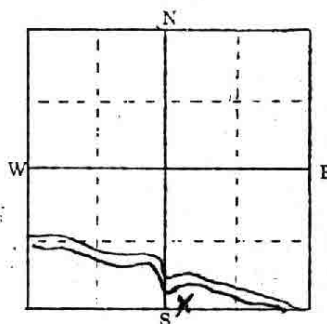
DATE _____ 19 _____

LOCATION OF WELL

County MoffatSW 1/4 of SE 1/4 of Sect. 21, Twp. 6NRge. 99 W, 6 P.M. OR ✓

Street Address or Lot & Block No.

Town or Subdivision



Locate well in 40 acre (small) square as near as possible. Large square is one section.

\$25.00 fee required for uses other than Domestic or Livestock.

Applicant _____

Agent or _____

Driller _____ No. _____

Address _____

Driller to furnish Log and History (Form E) within 30 days after completion of well.

NOTE - SATISFACTORY COMPLETION REQUIRED FOR APPROVAL OF APPLICATION

THE ABOVE APPLICATION, BEING A PART OF THIS PERMIT, IS APPROVED AS INDICATED.

SEAL

J. B. Whitton
STATE ENGINEER
Geo. W. Holburn

ANALYSES BY GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR
(parts per million)

Salt Lake City Lab. No.	25369					
Date of collection	9-18 1962					
Silica (SiO ₂)	15					
Iron (Fe), dissolved*						
Iron (Fe), total	1.2					
Manganese (Mn), dissolved*						
Manganese (Mn), total	.02					
Calcium (Ca)	29					
Magnesium (Mg)	12					
Sodium (Na)	19					
Potassium (K)						
Bicarbonate (HCO ₃)	173					
Carbonate (CO ₃)	0					
Sulfate (SO ₄)	19					
Chloride (Cl)	2.0					
Fluoride (F)	.1					
Nitrate (NO ₃)	.2					
Boron (B)						
Dissolved solids						
Sum						
Residue on evaporation						
at 180° C	175					
Hardness as CaCO ₃	123					
Non-carbonate	0					
Alkalinity as CaCO ₃	142					
Specific conductance						
(micromhos at 25° C)	301					
pH	7.7					
Color						
CO ₂ (calculated)						

*In solution at time of analysis.

25369 - Drilled Well #5, Deerlodge Park, Moffat County, Colorado.
Depth: 60'. Diam: 4". WBF: SS (Navaho?). Yield: 2 GPM - flow.
Clear. Cased to: 34'. Drilled: Sept. 15, 1962. Poc: pump dis-
charge. Owner: NPS. Test well for National Park Service
River campground. Collected by: Paul Ellis.

GPO 886221

Other Supporting Information

Dinosaur National Monument
Vernal, Utah

154

January 31, 1963

Office of the State Engineer
232 State Service Building
1525 Sherman Street
Denver 3, Colorado

Attention: George W. Colburn

Gentlemen:

Thank you for your letter of January 22, 1963 in which you pointed out discrepancies between the permit forms, the log and history forms, and plotted map locations. We have checked our locations and find that some errors were made on our original permits and some errors made on the log and history form. Listed below are the correct locations of the wells on the Yampa River in Dinosaur National Monument.

No. 12223 - Andersons Hole; NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 13, T6N, R100W, 6PM

#24 No. 12224 - Deerlodge; SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 21, T6N, R99W, 6PM

No. 12225 - Hardings Hole; NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 22, T6N, R102W, 6PM

No. 12226 - Box Elder; NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 34, T7N, R103W, 6PM

No. 12227 - Echo Park; SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sec. 28, T7N, R103W, 6PM

On the Log and History Form, under pump data, it was indicated that 2 HP gas engine centrifugal pumps were being used. This gas engine pump was used for test pumping only. We will install hand pumps on each of these wells with a 1 $\frac{1}{2}$ inch outlet.

We are sorry for the discrepancies and hope this will clear up the matter. If we can be of further assistance please do not hesitate to call on us.

Thank you for your cooperation.

Sincerely yours,


Vern R. Bertsch
Acting Superintendent


cc: Contract File

Long Distance Telephone Call

Oct. 16, 1962

Routing:

From: Chief Ranger Vern Bertsch, Dinosaur

To: Hydraulic Engineer, Midwest Regional Office

Subject: Deer Lodge Park Test Well

Files
L54 DINO

Mr. Bertsch has obtained an estimate of costs to test-pump the water supply from the Deer Lodge Park test well. The estimate was on an hourly basis of \$8.50 per hour, including travel from Craig, Colorado to Deer Lodge Park and return. The driller (William Levkulich) proposes to use a jet-type pump which would involve two water lines into the well. The driller estimates the cost of mobilization and demobilization of equipment and the required amount of plastic pipe to be used with the jet would amount to \$51.50.

We advised Mr. Bertsch that the pump should be capable of delivering 30 gpm, and that the supply should be step-tested at 18, 16, 25 and 30 gpm. The pumping, ^{for each of} ~~after~~ the various discharges, should be continued until the water surface becomes stable. At the end of the step-test, a continuous pumping test should be accomplished, operating with a discharge of 25 gpm for a period of 10 hours. It will be necessary to observe the depth to the water surface by use of either an air line and hand pump, or by a tape and weight.

Mr. Bertsch will advise this office when the test-pumping is commenced.

William A. Mott

William A. Mott
Hydraulic Engineer

WAMott/etb - 10/17/62

ANALYSES BY GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR
(parts per million)

Salt Lake City Lab. No.	25369					
Date of collection	9-18 1962					
Silica (SiO ₂)	15					
Iron (Fe), dissolved*						
Iron (Fe), total	1.2					
Manganese (Mn), dissolved*						
Manganese (Mn), total	.02					
Calcium (Ca)	29					
Magnesium (Mg)	12					
Sodium (Na)	} 19					
Potassium (K)						
Bicarbonate (HCO ₃)	173					
Carbonate (CO ₃)	0					
Sulfate (SO ₄)	19					
Chloride (Cl)	2.0					
Fluoride (F)	.1					
Nitrate (NO ₃)	.2					
Boron (B)						
Dissolved solids						
Sum						
Residue on evaporation						
at 180° C	175					
Hardness as CaCO ₃	123					
Non-carbonate	0					
Alkalinity as CaCO ₃	142					
Specific conductance						
(micromhos at 25° C)	301					
pH	7.7					
Color						
CO ₂ (calculated)						

*In solution at time of analysis.

25369 - Drilled Well #5, Deerlodge Park, Moffat County, Colorado.
Depth: 60'. Diam: 4". WBF: SS (Navaho?). Yield: 2 GPM - flow.
Clear. Cased to: 34'. Drilled: Sept. 15, 1962. Poc: pump dis-
charge. Owner: NPS. Test well for National Park Service
River campground. Collected by: Paul Ellis.

N A R R A T I V E

DEER LODGE PARK WELL

1. Started drilling well September 15, 1962 and completed well the same day. Well was pump tested on September 19, 1962.

2. Total Cost of Drilling Well

Drilling, 30 ft. @ 40.00	\$1,200.00
Drilling, 4 hrs. to 60 ft. @ 22.00	88.00
Casing, 36 ft. @ 2.00	72.00
Grouting	95.00
Bailing & testing, 2 hours	40.00
Pump test	122.48
Total	\$1,617.48

3. Drilling Log

Fine sand, gray	0-20 feet
Boulders, red, gray, white	20-29 feet
Sandstone with streaks of shale, gray, white	29-60 feet

4. No difficulties encountered.

5. Physical Dimensions

60 ft. hole
4 inch diameter

6. Test Pumping Data

September 19, 1962 - pump test data:

Static water level	42 feet (flowing well)
Pumping water level	21 feet 9 inches at 2 GPM

November 1, 1962 - pump test data:

Pumped at 2 GPM - pumping level at 23 feet
Static water level 42 feet (flowing well)

7. Equipment Used

A truck mounted rotary rig was used to drill this well.

8. Drilling Progress

The entire well was drilled in one day, September 15, 1962.

9. Grouting

A surface seal of concrete to a depth of 8 feet and 9 inches thick was poured around the 4 inch casing.

10. Quality of Water Supply

See attached sheet, an analysis by Geological Survey, United States Department of the Interior, Ground Water Branch, Room 125, 231 East 4th South, Salt Lake City, Utah.

Refer to FCF M-31, Well Development. Hand pumps will be used at this well.

Submitted by:

Verns A. Bertsch, Chief Park Ranger

Approved by:

Earl H. Hemmerson, Superintendent

Docket Information

Number of Documents in Docket 18

Documents Dated from 10/16/1962 to 1/31/1963

Docket Compiled: 6/28/2012